

CLAIMS

WHAT IS CLAIMED IS:

1. A method for forming extruded material to produce a component, said method comprising:
 - 5 (a) continuously feeding a raw material into an extrusion device;
 - (b) extruding the material from the extrusion device;
 - (c) forming the extruded material into a sheet with opposed first and second edges and a longitudinal axis coincident with the first opposed edge;
 - (d) pulling the sheet through a first fixture;
- 10 (e) bending the sheet in the first fixture about a plurality of axes producing a plurality of linear and non-linear segments, each linear and non-linear segment parallel with the longitudinal axis;
- (f) drawing the plurality of linear and non-linear segments through a second fixture for dimensioning the linear and non-linear segments to within an assigned
- 15 tolerance.
2. The method of claim 1, wherein the raw material comprises polyvinyl chloride.
3. The method of claim 1, wherein the step of bending comprises bending about at least 2 axes.
- 20 4. The method of claim 3, wherein the step of bending comprises bending about at least 8 axes.
5. The method of claim 1, wherein the step of drawing comprises drawing the plurality of linear and non-linear segments through the second fixture to draw out a finished product.
- 25 6. The method of claim 1, wherein the step of forming comprises forming a sheet approximately 200 mm wide and approximately 1 mm in thickness in a flat sheet die.

7. The method of claim 1, wherein the step of pulling comprises pulling the sheet at a rate of at least 18 meters per minute with a haul-off apparatus.

8. The method of claim 1, wherein the step of drawing further comprises reducing the air pressure applied to the plurality of linear and non-linear segments
5 through a series of passages disposed within the second fixture.

9. The method of claim 1, wherein the component produced from the method is a dual undersill trim component utilized to finish a top course of siding located beneath a soffit or a window sill.

10. The method of claim 9, wherein the dual undersill trim component is comprised of a back panel, the back panel further comprised of an inner layer and an outer layer, the inner layer transitioning to the outer layer in a continuous fashion at the lowermost extreme of the inner back panel.

11. The method of claim 10, wherein the inner layer and outer layer above the lowermost extreme of the back panel are separated by no more than 2 mm for
15 approximately 15 mm forming a nail hem.

12. The method of claim 11, wherein the inner layer and outer layer above the nail hem are closely separated for a distance of approximately 25 mm.

13. The method of claim 12, wherein opposite the lowermost extreme of the back panel, the outer layer transitions to an outwardly extending upper flange.

20 14. The method of claim 13, wherein the outwardly extending upper flange extends approximately 15 mm beyond the transition from the outer layer.

15. The method of claim 14, wherein opposite the lowermost extreme of the back panel, the inner layer transitions to an outwardly extending lower flange.

25 16. The method of claim 15, wherein the outwardly extending lower flange extends approximately 10 mm beyond the transition from the inner layer.

17. The method of claim 16, wherein opposite the transition from the outer layer the outwardly extending upper flange transitions to a downwardly extending outer flange.

18. The method of claim 17, wherein the downwardly extending outer flange is approximately 25 mm in length.

19. The method of claim 18, wherein opposite the transition from the inner layer the outwardly extending lower flange transitions to a downwardly extending inner flange.

20. The method of claim 19, wherein the downwardly extending inner flange is approximately 24 mm in length.

21. The method of claim 20, wherein the downwardly extending outer flange terminates in an inwardly curving arc with a radius of curvature of approximately 2 mm.

22. The method of claim 21, wherein the downwardly extending inner flange terminates in an inwardly curving arc with a radius of curvature of approximately 2 mm.

23. A method of forming a component through post-form extrusion, the method comprising:

mounting an extrusion device, a flat sheet die, a preform fixture and a calibrator fixture in series; feeding thermoplastic resin into the extrusion device; extruding a material; forming the extruded material in the flat sheet die into a sheet with a first and second edge, the first edge parallel with the longitudinal axis of the sheet; preforming in the sheet as the sheet passes through the preform fixture a plurality of linear and non-linear segments parallel to the longitudinal axis; transferring the plurality of linear and non-linear segments from the preform fixture to the calibrator fixture; dimensioning the plurality of bends and planar segments in the calibrator fixture to final product

specifications; cooling the dimensioned plurality of linear and non-linear segments.

24. The method of claim 23, wherein the thermoplastic resin comprises polyvinyl chloride.

5 25. The method of claim 23, wherein the preforming step comprises bending the sheet to form an inner layer and an outer layer with an upper portion and a lower portion.

26. The method of claim 25, wherein the lower portion of the inner and outer layer comprise a nail hem.

10 27. The method of claim 26, wherein the nail hem inner and outer layers are separated by less than about 2 mm.

28. The method of claim 23, wherein the dimensioning step includes applying a reduced air pressure to the linear and non-linear segments transitioning through the calibrator fixture.

15 29. The method of claim 23, wherein the preform fixture is comprised of an engineered thermoplastic.

30. The method of claim 23, wherein the calibrator fixture is comprised of stainless steel.

20 31. A dual undersill trim component formed from a flat sheet of material for minimizing the deformation of a top course of vinyl siding installed in proximity to a soffit or window sill comprising:

25 a back panel comprised of an inner layer and an outer layer with an upper portion and a lower portion, a nail hem with integral nail slots disposed within the lower portion of the back panel, the inner layer transitioning to the outer layer at the lowermost extreme of the inner and outer layers, upper and lower flanges disposed opposite the lowermost extreme of the inner and outer layers, the upper and lower flanges extending outwardly from the outer and inner layers respectively, inner

and outer flanges extending downwardly from the lower and upper flanges respectively, the inner and outer flanges terminating in first and second inwardly curving arcs respectively.

32. The dual undersill of claim 31, wherein the back panel, upper and 5 lower flanges, inner and outer flanges and inwardly curving first and second arcs are comprised of polyvinyl chloride.

33. The dual undersill of claim 31, wherein the back panel, upper and lower flanges, inner and outer flanges and first and second inwardly curving arcs are comprised of a single continuous sheet.

10 34. The dual undersill of claim 33, wherein the sheet is initially approximately 200 mm wide and approximately 1 mm thick.

35. The dual undersill of claim 31, wherein the inner layer and outer layer, upper and lower flanges, inner and outer flanges and first and second inwardly curving arcs are each approximately 1 mm in thickness.

15 36. A dual undersill trim component comprising:

- (a) a back panel formed from a single sheet of material, the back panel further comprising an inner and outer layer, the inner layer transitioning to the outer layer at a lowermost extreme of the back panel;
- (b) an upper and lower flange formed from the single sheet of material, the upper and lower flanges extending outwardly from the outer and inner layer respectively opposite the lowermost extreme of the back panel;
- (c) an inner and outer flange formed from the single sheet of thermoplastic, the inner flange extending downwardly from the lower flange opposite the inner layer, the outer flange extending downwardly from the upper flange opposite the outer layer;
- (d) a first and second inwardly curving arc formed from a single sheet of thermoplastic, the inner flange terminating in the first inwardly curving arc, the outer flange terminating in the second inwardly curving arc.

37. The dual undersill of claim 36, wherein the single sheet is comprised of a thermoplastic.

38. The dual undersill of claim 36, wherein the single sheet is approximately 200 mm wide and 1 mm thick.

5 39. The dual undersill of claim 36, wherein the inner and outer layer, the upper and lower flange, the inner and outer flange and the first and second inwardly curving arcs are about 1 mm in thickness.

40. The dual undersill of claim 36, wherein the first and second inwardly curving arcs have a radii of curvature of about 2 mm.